

# VIDEOLOGY

IMAGING SOLUTIONS INC.  
Original Equipment Manufacturer

## User Manual for LCD Monitor 45M104 10.4" LCD



**Prior to Using This Document:** Videology reserves the right to modify the information in this document as necessary and without notice. It is the user's responsibility to be certain they possess the most recent version of this document by going to [www.videologyinc.com](http://www.videologyinc.com), searching for the model number, and comparing revision letters on the respective document, located in the document's footer.

**For technical assistance with this product, please contact the supplier from whom the product was purchased.**

Videology® Imaging Solutions, Inc.



37M Lark Industrial Parkway  
Greenville, Rhode Island 02828 USA  
Tel: (401) 949 – 5332 Fax: (401) 949 – 5276  
North/South American Sales: [sales@videologyinc.com](mailto:sales@videologyinc.com)  
[www.videologyinc.com](http://www.videologyinc.com)

Videology® Imaging Solutions, Europe B.V.

Neutronenlaan 4  
NL-5405NH Uden, The Netherlands  
Tel: +31 (0) 413 256261 Fax: +31 (0) 413 251712  
European Sales: [info@videology.nl](mailto:info@videology.nl)  
[www.videology.nl](http://www.videology.nl)

**License Agreement (Software):**

This Agreement states the terms and conditions upon which Videology Imaging Solutions, Inc. USA and Videology Imaging Solutions, B.V. Europe (hereafter referred to as "Videology®") offer to license to you the software together with all related documentation and accompanying items including, but not limited to, the executable programs, drivers, libraries, and data files associated with such software.

The Software is licensed, not sold, to you for use only under the terms of this Agreement.

Videology grants to you, the purchaser, the right to use all or a portion of this Software provided that the Software is used only in conjunction with Videology's family of products.

In using the Software you agree not to:

- Decompile, disassemble, reverse engineer, or otherwise attempt to derive the source code for any Product (except to the extent applicable laws specifically prohibit such restriction);
- Remove or obscure any trademark or copyright notices.

**Limited Warranty (Hardware and Software):**

ANY USE OF THE SOFTWARE OR HARDWARE IS AT YOUR OWN RISK. THE SOFTWARE IS PROVIDED FOR USE ONLY WITH VIDEOLOGY'S HARDWARE. THE SOFTWARE IS PROVIDED FOR USE "AS IS" WITHOUT WARRANTY OF ANY KIND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, VIDEOLOGY DISCLAIMS ALL WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, QUALITY AND FITNESS FOR A PARTICULAR APPLICATION OR PURPOSE. VIDEOLOGY IS NOT OBLIGATED TO PROVIDE ANY UPDATES OR UPGRADES TO THE SOFTWARE OR ANY RELATED HARDWARE.

**Limited Liability (Hardware and Software):**

In no event shall Videology or its Licensor's be liable for any damages whatsoever (including, without limitation, incidental, direct, indirect, special or consequential damages, damages for loss of business profits, business interruption, loss of business information, or other pecuniary loss) arising out of the use or inability to use this Software or related Hardware, including, but not limited to, any of Videology's family of products.

Doc # INS-45M104	Issue Date: 5/15/2012
Revision: A	Page 2 of 16

# Table of Contents

1.	Document History .....	4
2.	Warning.....	4
3.	Precautions .....	4
	Safety.....	4
	Installation .....	4
	Cleaning.....	4
4.	Federal Communications Commission (FCC) Statement.....	5
5.	Features .....	5
6.	Operating Instructions .....	6
6.1.	Key Board Control.....	6
6.2.	Connectors .....	7
6.3.	Remote Control Operation.....	8
6.4.	OSD Functions .....	9
6.4.1.	Source.....	9
6.4.2.	Item (Hot key, simple operation).....	9
6.4.3.	OSD Menu .....	9
7.	PC Timing.....	13
8.	LCD monitor Mounting Guide .....	13
9.	Specifications .....	14
10.	Appendixes .....	15
10.1.	Troubleshooting .....	15
11.	Package List.....	15
12.	Contact Information .....	16

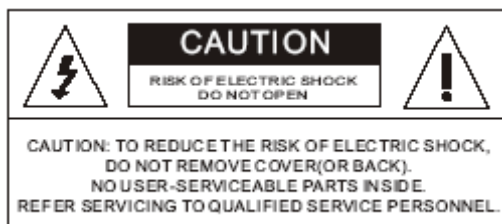
## 1. Document History

Revision	Issue Date	Reason	CN#
Rev A	02-22-2012	Initial release	12-0026

## 2. Warning

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK:  
DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.  
DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

### CAUTION:



### Explanation of Graphical Symbols



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of non-insulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

## 3. Precautions

### Safety

Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by the qualified personnel before operating it any further. Unplug the unit from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself. Allow adequate air circulation to prevent internal heat built-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.

### Installation

Do not install the unit in an extremely hot or humid place or in a place subject to excessive dust or mechanical vibration. The unit is not designed to be waterproof. Exposure to rain or water may damage the unit.

### Cleaning

Clean the unit with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzene as they might damage the finish of the unit.

Retain the original carton and packing materials for safe transport of this unit in the future.

Doc # INS-45M104	Issue Date: 5/15/2012
Revision: A	Page 4 of 16

#### 4. Federal Communications Commission (FCC) Statement

This Equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by that party responsible for compliance could void your authority to operate the equipment.

This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received including interference that may cause undesired performance.

#### 5. Features

- Special Video Processor
- Inputs/Outputs: 1 BNC Composite Video, S-Video, 1CH Audio (RCA) & PC IN
- PIP Control Function (Only PC/Video)
- Screen protector (Anti-blur /Image auto move)
- NTSC/PAL Auto Switch
- 3D De-interlace Technology
- 3D Comb Filter Technology
- Automatic Color Control and Color Killer
- Luminance transient improvement (LTI), Chrominance transient improvement (CTI)
- Directional zoom engine
- Auto termination (75 Ohms)
- Built-in 2W+2W speaker
- IR remote control enabled
- VESA standard bracket 75/100mm
- Wall mount capability

## 6. Operating Instructions

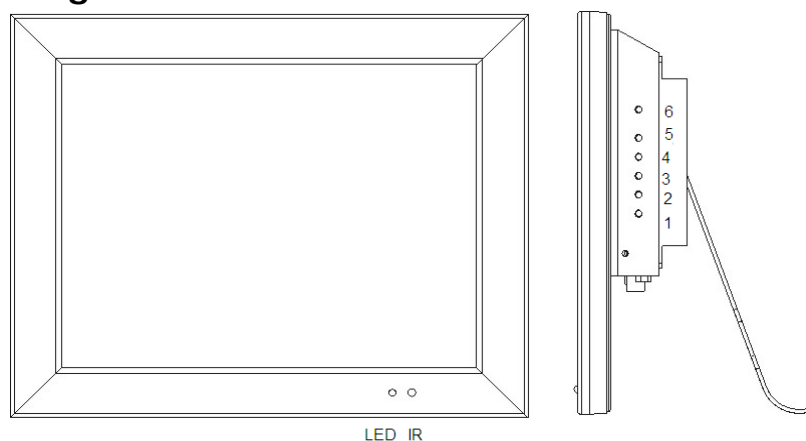


Figure 1. Front and side Panel

### 6.1. Key Board Control

#### 1. **Power**

Monitor power ON / OFF. At OFF mode, monitor will be at standby status

Green Light -- Power On

Red Light -- Standby mode

#### 2. **Adjust** ◀

Increase the value on the OSD menu or turn ON / OFF function

#### 3. **Adjust** ▶

Decrease the value on the OSD menu or turn ON / OFF function

#### 4. **Item/Select**

Choose sub menu Hot key selection for:

Brightness/ Contrast/ Backlight/ Sharpness/ Hue/ Color/ Volume

Press again to enter selected option

#### 5. **Menu/Function**

OSD menu ON / OFF control

#### 6. **Source**

SDE: Select input signal from AV1, S-Video or PC.

SHDE: Select input signal from AV1, AV2, S-Video, PC, HD.

Used as "Return/Exit" function in OSD menu

\*\*\*Push "Menu" and "Up" into key-lock mode, and push again into unlock.\*\*\*

## 6.2. Connectors

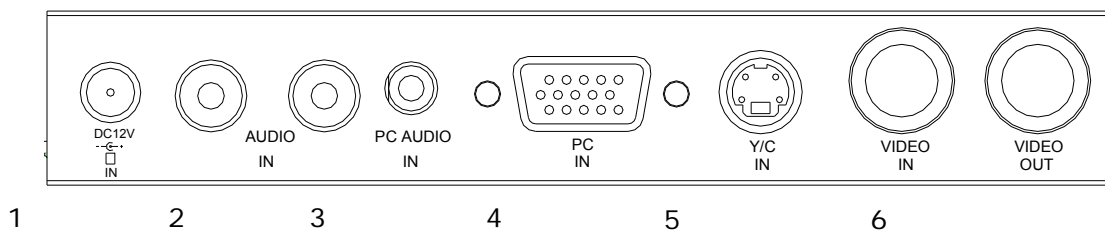
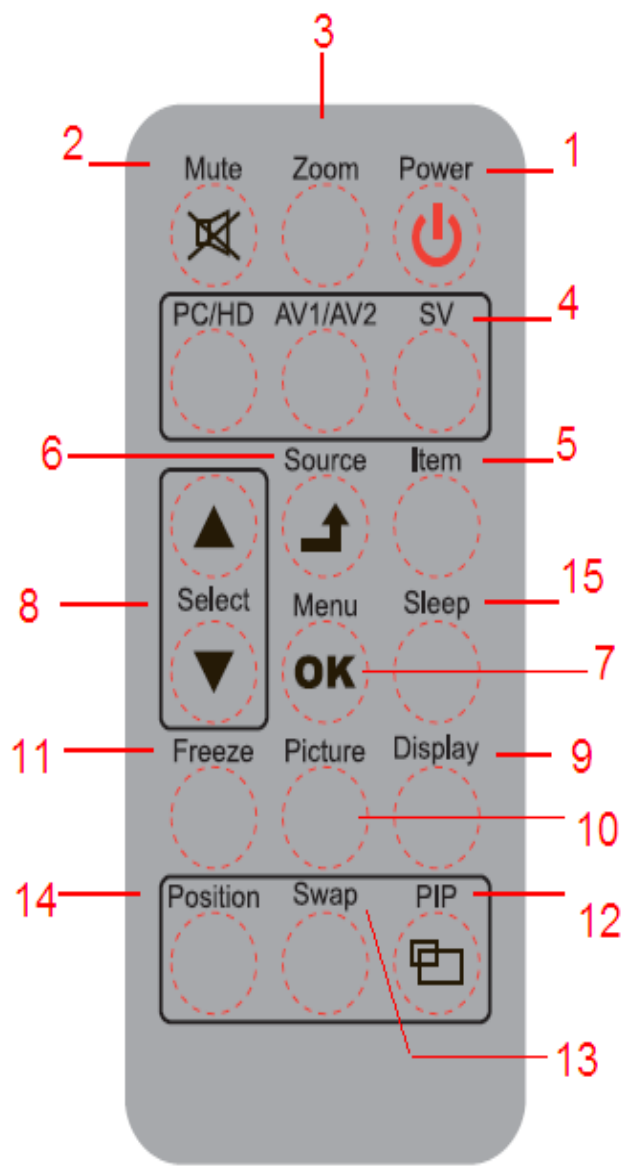


Figure 2. Back Panel

1. Regulated DC12V Power Input
2. AUDIO R/L In  
Audio Signal Input, this input is for Video and Y/C
3. PC AUDIO IN
4. PC IN
5. Y/C IN (S-Video)
6. Video IN/OUT

### 6.3. Remote Control Operation



1. **Power:** Push to turn on and turn off the unit.
2. **Mute:** Disable the unit's sound output, press the button again or the Volume +/- button to restore the volume.
3. **Zoom:** Toggle between the image ratios. (4:3/16:9/14:9/Movie/Panorama)
4. **PC/HD, AV1/AV2, SV:** Press to choose the desired signal source directly.
5. **Item:** As hot key selection for Brightness/Contrast/Backlight/Sharpness/Hue/Color /Volume > adjust
6. **Source/(Exit):** Push to select input signal. Used as "Return/Exit" function in OSD menu.
7. **OK/Menu:** Push to call out OSD menu. Used as "Confirm / OK" function in OSD menu.
8. **Select▲/▼:** Change the function up or down.
9. **Display:** Press to display the information on the screen, such as resolution, signal source.
10. **Picture:** Toggle between the different picture modes. Standard /Soft/Personal /Bright.
11. **Freeze:** Press to freeze the picture (AV1, AV2, SVideo), press again to restore.
12. **PIP:** Press to activate the PIP function and select the size of sub-picture Small/Medium/Large/1+1/Off. Off means PIP function is turned off.

13. **Swap:** In the PIP mode, press the button to switch the main picture and sub-picture. (This function works only when sub-picture exists.)

14. **Position:** PIP mode Press to select the position of sub-picture. (4 corners and center)

15. **Sleep:** Select the Automatic turn off time.



## 6.4. OSD Functions

### 6.4.1. Source

Push <**Source**>button to selection the channel (AV/SVIDEO/PC).

### 6.4.2. Item (Hot key, simple operation)

Use < **Item** > button as hot key to call out Adjust bar. Then use +/- button to increase/decrease the menu bar. (Brightness/Contrast/Backlight/Sharpness/Hue/Color /Volume)



### 6.4.3. OSD Menu

Push <**Menu**>button to display the **Main menu**.

Main menu includes (Picture), (Sound), (PIP), (Display), (Function) and (Exit) 6 categories.

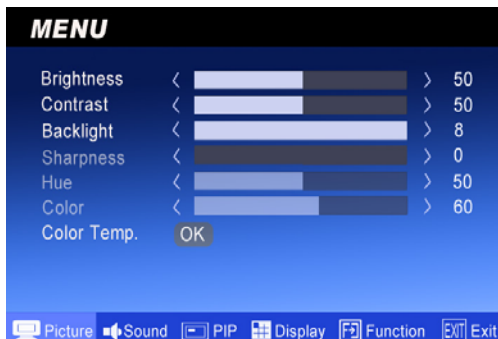
Use **Select** (▲▼) button to select the function category to be adjusted.

Push the **Menu/OK** button to enter the selected category.

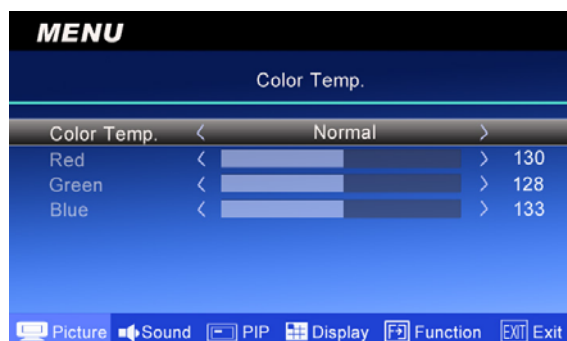
#### 6.4.3.1. PICTURE



(Mode: AV, S-VIDEO, HD)



(Mode: PC D-Sub)



(Color Temp.)

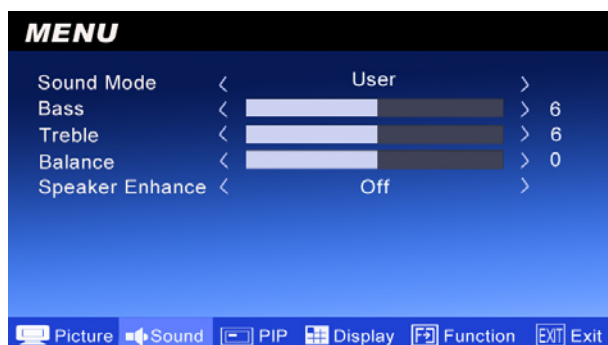
Use Select (▲▼) button to select the item to be adjusted.

Push <Menu> to confirm the selected item;

Use Select (▲▼) button to adjust and then push <Source> button to return.

MENU	FUNCTION	MODE
Brightness	Use Select (▲▼) button to increase/decrease the screen brightness.	all
Contrast	Use Select (▲▼) button to increase/decrease the screen contrast.	all
Back light	Use Select (▲▼) button to increase/decrease the screen backlight.	all
Sharpness	Use Select (▲▼) button to adjust the sharpness of the image.	AV/S-video/HD
Hue	Use Select (▲▼) button to adjust the hue of the image.	AV/S-video/HD
Color	Use Select (▲▼) button to increase/decrease the image color saturation.	AV/S-video/HD
Color Temp	Use Select (▲▼) button to select the desired color temperature. There are <b>Normal / Warmer / Warm / Cool / Cooler / User</b> 6 modes. In User mode, push <MENU> button to enter and adjust the <b>Red/Green/Blue</b> color separately.	all

#### 6.4.3.2. SOUND

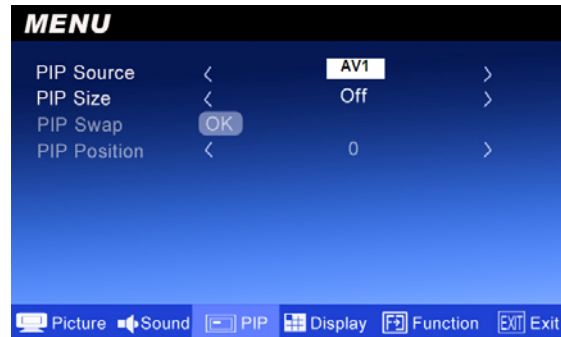


Use **Select** (▲▼) button to select the item to be adjusted. Push **Menu** to confirm the selected item, use **Select** (▲▼) button to adjust and then push <**Source**> button to return.

MENU	FUNCTION	MODE
Sound Mode	Use Select (▲) (▼) button to select <b>Theater//Music/News/Original/User</b> 5 kinds of modes	all
Bass	Use Select (▲) (▼) button to adjust the Bass	all
Treble	Use Select (▲) (▼) button to adjust the Treble	all
Balance	Use Select (▲) (▼) button to adjust the left / right balance	all
Speaker Enhance	Use Select (▲) (▼) button to select On/Off	all

#### 6.4.3.3. PIP

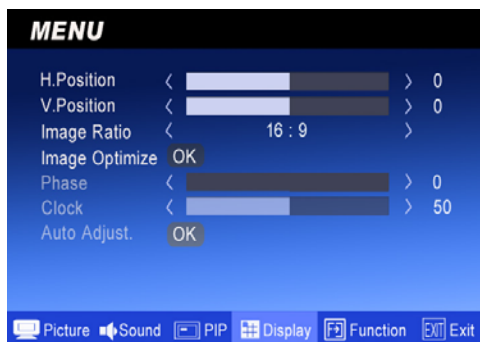
Use **Select** (▲▼) button to select the item to be adjusted. Push **Menu** to confirm the selected item, use **Select** (▲▼) button to adjust and then push <**Source**> button to return.



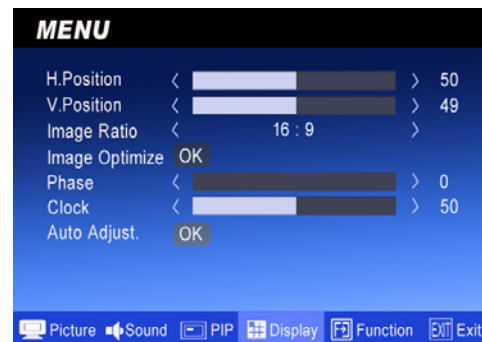
MENU	FUNCTION
PIP Source	Use Select (▲▼) button to select the source of sub-picture.
PIP Size	Use Select (▲▼) button to select the size of sub-picture Small/Medium/Large/1+1/Off. Off means PIP function is turned off.
PIP Swap	Push <MENU> button to switch the main picture and sub-picture. (This function works only when sub-picture exists )
PIP Position	Use Select (▲▼) button to select the position of sub-picture(0~5) 4 corners and center.(This function works only when sub-picture exists)

#### 6.4.3.4. Display

Use Select (▲▼) button to select the item to be adjusted. Push Menu to confirm the selected item , use Select (▲▼) button to adjust and then push <Source> button to return.



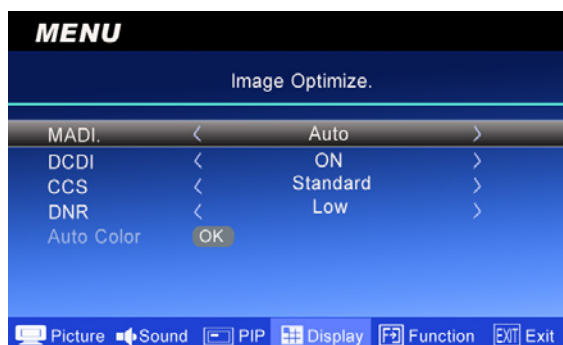
(Mode: AV, S-VIDEO, HD)



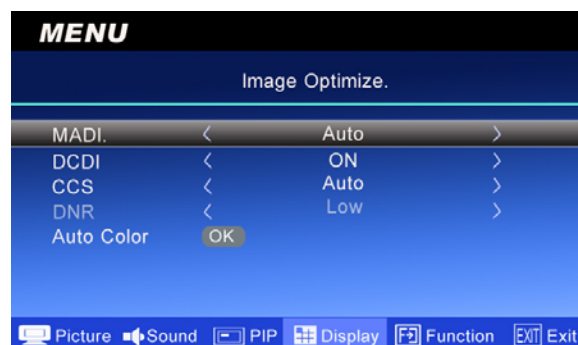
(Mode: PC D-Sub)

MENU	FUNCTION	MODE
H. Position	Use Select (▲▼) button to adjust the horizontal position of the image.	all
V. Position	Use Select (▲▼) button to adjust the vertical position of the image.	all
Image Ratio	Use Select (▲▼) button to select the image ratio. PC mode : 4:3/16:9 AV/S-VIDEO mode : 4:3/16:9/14:9/Movie/Panorama	all
Image Optimize	Push <MENU> button to enter the sub-menu and use Select (▲▼) button to adjust/select	all
Phase	Use Select (▲▼) button to increase/decrease the noise on the screen.	PC
Clock	Use Select (▲▼) button to increase/decrease the snowflake noise on the screen.	PC
Auto Adjust	Push <MENU> button to adjust the best image.	PC

#### 6.4.3.5. Image Optimize



(Mode: AV, S-VIDEO, HD)

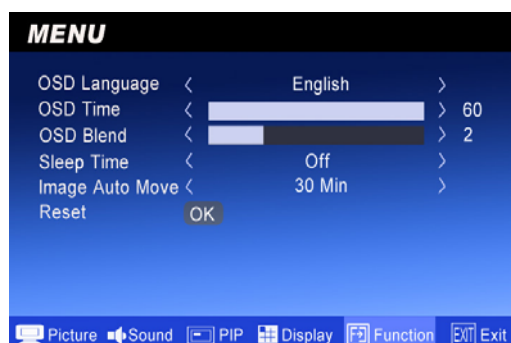


(Mode: PC D-Sub)

MENU	FUNCTION	MODE
MADI	Use Select (▲▼) button to select Auto/Off/Standard 3 kinds of modes.	all
DCDI	Use Select (▲▼) button to select On/Off.	all
CCS	Use Select (▲▼) button to select Auto/Off/Standard 3 kinds of modes.	all
DNR	Use Select (▲▼) button to select Low/ Medium/ High/ Off 4 kinds of modes.	AV/S-video/HD
Auto Color	Push <MENU> button to adjust the best image color.	PC

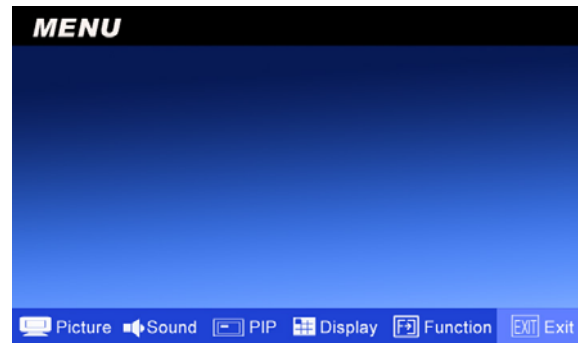
#### 6.4.3.6. Function

Use Select (▲▼) button to select the item to be adjusted. Push MENU to confirm the selected item, Use Select (▲▼) button to adjust and then push <Source> button to return.



MENU	FUNCTION	MODE
OSD Language	Use Select (▲▼)button to select the desired language.	all
OSD Time	Use Select (▲▼) button to increase/decrease the OSD display time.	all
OSD Blend	Use Select (▲▼) button to increase/decrease the transparent degree of the OSD display.	all
Sleep Time	Use Select (▲▼) button to select the automatic turn off time. Off/10/20/30/60/90/120/150/180 Min.	all
Image Auto Move	Use Select (▲▼) button to select the image move time. Off/30/60/90/120/180 Min.	all
Reset	Push <MENU> button to return to factory default setting.	all

#### 6.4.3.7. Exit



Push <**MENU**> to exit the OSD menu.

## 7. PC Timing

Mode	Resolution	Horizontal Frequency	Vertical Frequency
1	800*600@60	37.879	60.317
2	800*600@72	48.077	72.188
3	800*600@75	46.875	75.000
4	1024*768@60	48.363	60.004
5	1024*768@70	56.476	70.069
6	1024*768@75	60.023	75.029

## 8. LCD monitor Mounting Guide

### A. Desktop

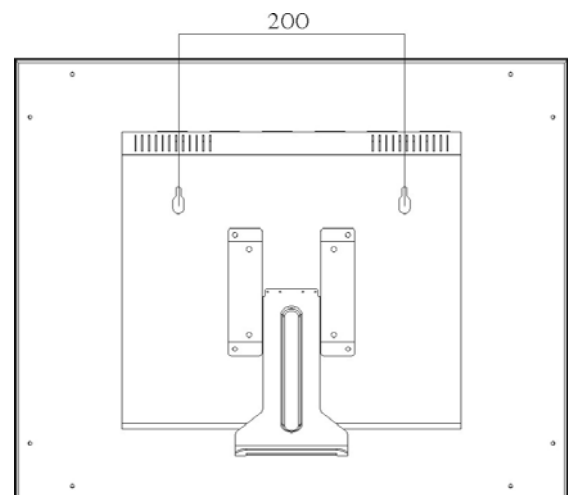
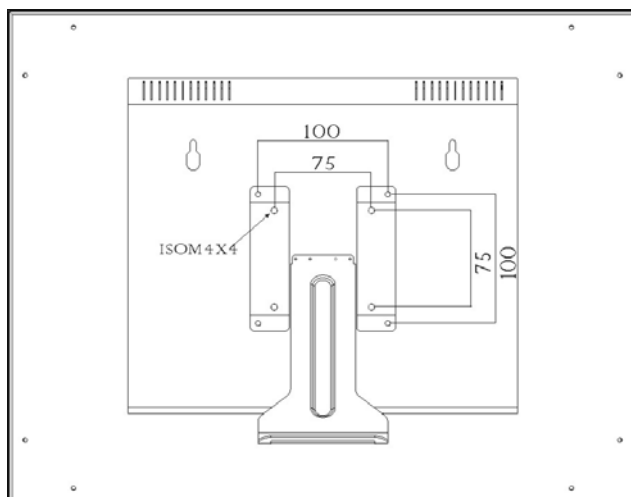
Adjust the viewing angle of LCD to fit most comfortable monitoring status.

### B. Wall mount

Free your space with wall mount design.

Please follow the fix-hole size in back panel to install the LCD to the wall.

### C. VESA Bracket



## 9. Specifications

<b>Electrical</b>	<b>45M104</b>	
Operating System	NTSC/ PAL/ XGA/ VGA/ SVGA	
Picture Size	10.4" diagonal	
Aspect Ratio	4:3	
Resolution (H x V)	1024 x 768 pixels	
Display Colors	16.2M	
Brightness	300 (nit)	
Contrast Ratio	500:1	
Response Time	25ms	
Backlight	CCFL	
Input Signal	Video	1 CH 1Vp-p Composite video at 75 Ohms
	S-video	Y=1.0Vp-p w/neg. sync C=0.285Vp-p
	PC	Analog RGB
Video Angle	Up 50°, Down 60°, Left 70°, Right 70°	
Lamp Life-time	50,000 hrs	
Power Source	12VDC/ 90~260V AC 60Hz/ 50Hz global switching power adapter	
Power Consumption	3Amp	

### Environmental

Operating Temperature	0°C ~ 50°C (32°F ~ 122°F)
Operating Humidity	10% - 85% R.H.
Storage Temperature	-10°C ~ 60°C (14°F ~ 140°F)
Storage Humidity	10% - 85% R.H.

### Mechanical

Dimensions W x H x D	266.2mm x 213.3mm x 57.4mm (10.48" x 8.4" x 2.26")	
Weight	2.2 kg (4.85 lbs)	
Connectors	Video	1 BNC inputs/output 1 S-video 4-pin Mini DIN
	Audio	1 RCA input/output 1 Ø3.5mm jack input
	PC	1 15-pin D-sub connector

### Accessories

Included		Power supply
		Power cord
		15 pin D-sub
		Remote control
		Bracket: VESA 100/75 standard

### Safety Standards

	FCC, CE, UL
--	-------------

## 10. Appendixes

### 10.1. Troubleshooting

The tables provided below include some problems that the user may encounter while using the display and the corresponding solutions. Please refer to the contents of this section prior to contacting service personnel.

Problem	Possible Causes	Solutions
No picture	1. Is the power cable connected to the unit? 2. Is the unit turned on? 3. Is the signal cable connected to the unit? 4. Is the unit in power saving mode?	1. Make sure the power cable has been properly connected to the unit. 2. Turn on the unit. 3. Make sure the signal cable has been properly connected to the unit. 4. Press any key on computer keyboard.
Strange color	1. Is the signal cable connected to the unit?	1. Make sure the signal cable has been properly connected to the unit.
Picture distortion	1. Is the signal cable connected to the unit? 2. Is the video input signal within the unit's specified frequency range?	1. Make sure the signal cable has been properly connected to the unit. 2. Make sure the input signal is within the unit's specified frequency range.
Picture is too dim	1. Have the unit's brightness and contrast settings been set to the lowest level?	1. Adjust brightness and contrast
Only sound but no picture	1. Is the connection of the input signal correct?	1. Check connection of input signal. 2. Make sure the signal cable has been properly connected.
Only picture but no sound	1. Is the signal cable connected to the unit? 2. Has the volume been set to the min level? 3. Is the audio cable connected to the unit?	1. Make sure the signal cable has been properly connected to the unit. 2. Adjust the volume to an appropriate setting. 3. Make sure the audio cable has been properly connected to the unit.

Please contact the customer service center of your local dealer if you have any questions regarding the unit after reading the information provided above.

## 11.Package List

A. LCD Monitor	x 1
B. Power Cord	x 1
C. User Manual	x 1
D. 12V Power Adapter	x 1
E. Remote Control	x 1
F. VGA Cable (DB-15)	x 1

## 12.Contact Information

For technical assistance with this product, please contact the supplier from whom the product was purchased.

For OEM inquiries, contact Videology Imaging Solutions:

North / South America:	Europe:
Videology Imaging Solutions Inc. 37M Lark Industrial Parkway Greenville, RI 02828 USA Tel: (401) 949-5332 Fax: (401) 949-5276	Videology Imaging Solutions Europe Neutronenlaan 4 NL-5405 NH Uden, Netherlands Tel: +31 (0) 413 256 261 Fax: +31 (0) 413 251 712

Please visit our website at: <http://www.videologyinc.com>

**VIDEOLOGY IMAGING SOLUTIONS** is an ISO 9001 registered video camera developer and manufacturer serving industrial, machine vision, biometric, security, and specialty OEM markets. Videology designs, develops, manufactures, and distributes video, image acquisition, and display technologies and products to OEMs worldwide.